

CLAIMS:

What is claimed is:

- 1    1.    A method comprising:  
2            determining a first integration time for a first color channel;  
3            determining a second integration time for a second color channel, where the  
4    second integration time is shorter than the first integration time;  
5            dividing the second integration time into a set of integration times;  
6            integrating a first sensor over the first integration time; and,  
7            integrating a second sensor over the set of integration times.
- 1    2.    The method of claim 1, where dividing the second integration time into the set of  
2    integration times includes dividing the second integration time by a predetermined  
3    number to generate the set of integration times, where a sum of all integration times in  
4    the set of integration time equals the second integration time.
- 1    3.    The method of claim 1, where integrating the second sensor over the set of  
2    integration times includes integrating the second sensor over each of the set of integration  
3    times.
- 1    4.    The method of claim 3, where integrating the second sensor over each of the set  
2    of integration times includes generating a set of sample signals to the second sensor,  
3    where each sample signal in the set of sample signals corresponds to a respective  
4    integration time in the set of integration times.

1 5. The method of claim 1, where the set of integration times are dispersed  
2 throughout the first integration time.

1 6. An article comprising a computer readable medium having instructions stored  
2 thereon, which when executed, causes:  
3 determination of a first integration time for a first color channel;  
4 determination of a second integration time for a second color channel, where the  
5 second integration time is shorter than the first integration time;  
6 division of the second integration time into a set of integration times;  
7 integration of a first sensor over the first integration time; and,  
8 integration of a second sensor over the set of integration times.

1 7. The article of claim 6, where division of the second integration time into the set of  
2 integration times includes division of the second integration time by a predetermined  
3 number to generate the set of integration times, where a sum of all integration times in  
4 the set of integration time equals the second integration time.

1 8. The article of claim 6, where integration of the second sensor over the set of  
2 integration times includes integration of the second sensor over each of the set of  
3 integration times.

1 9. The article of claim 8, where integration of the second sensor over each of the set  
2 of integration times includes generation of a set of sample signals to the second sensor,  
3 where each sample signal in the set of sample signals corresponds to a respective  
4 integration time in the set of integration times.

1 10. The article of claim 6, where the set of integration times are dispersed throughout  
2 the first integration time.

1 11. An apparatus comprising:

2 an image sensor having a first sensor for a first color channel and a second sensor  
3 for a second color channel; and,

4 an control unit coupled to the image sensor, the control unit having:

5 a integration time generation unit;

6 a first color channel pulse generation unit coupled to the first sensor;

7 a first duty cycle register coupled to the first color channel pulse  
8 generation unit;

9 a second color channel pulse generation unit coupled to the second sensor;

10 and,

11 a second duty cycle register coupled to the second color channel pulse  
12 generation unit;

13 where the first color channel pulse generation unit generates a set of sample signals to the  
14 first sensor based on a value contained in the first duty cycle register.

1 12. The apparatus of claim 11, where the second color channel pulse generation unit  
2 generates a second set of sample signals to the second sensor based on a second value  
3 contained in the second duty cycle register.

1 13. The apparatus of claim 11, where the set of sample signals are a set of pulses  
2 having a duty cycle based on the value contained in the first duty cycle register.

1 14. The apparatus of claim 11, further comprising a signal processing unit coupled to  
2 the first image sensor to receive an output.

1 15. The apparatus of claim 14, where the signal processing unit receives a set of  
2 sampled signals from the first sensor based on the set of sample signals and is configured  
3 to combine the set of sampled signals into a single output.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100